| SPECIFICATIONS | | | | | |
|--|---|--|--|--|--|
| ARRAY SERIES | 4890A,4891A | 4892A,4892A-90 | 4893A | 4894A,4894A-90 | |
| | | | | | |
| Frequency Response (±3 dB) ¹ : | 70 Hz - 18 kHz | 50 Hz - 18 kHz | 38 Hz - 400 Hz | 46 Hz - 18 kHz | |
| Sensitivity: | 98 dB (1 W, 1m) | 98 dB (1 W, 1m) | 98 dB (1 W, 1m) | 100 dB (1 W, 1m) | |
| Recommended Amplifier Power ² : | | | | | |
| High Frequency: | 300 W at 8 ohms | 300 W at 8 ohms | N/A | 300 W at 8 ohms | |
| Low Frequency: | 600 W at 8 ohms | 600 W at 8 ohms | 600 W at 8 ohms each transducer, 1200 W total | 600 W at 8 ohms each transducer (x2) | |
| Nominal Coverage: | 4890A: 60° horizontal, 40° vertical or 40° horizontal, 60° vertical | 4892A: 45° horizontal, 35° vertical | Array Dependent | 4894A: 45° horizontal, 35° vertical | |
| | 4891A: 60° horizontal, 40° vertical | 4892A-90: 90° horizontal, 35° vertical | | 4894A-90: 90° horizontal, 35° vertical | |
| LOW FREQUENCY TRANSDUCERS: | | | | | |
| Nominal Diameter: | 355 mm (14 in) | 355 mm (14 in) | (Two) 355 mm (14 in) | (Two) 355 mm (14 in) | |
| Nominal Impedance: | 8 ohms | 8 ohms | Two Transducers with separate pinouts, 8 ohms each | Two Transducers with separate pinouts, 8 ohms ea | |
| Power Rating: | 600 W AES, 50 Hz to 500 Hz, 2400 W peak | 600 W AES, 50 Hz to 500 Hz, 2400 W peak | 600 W AES, each transducer 50 Hz to 500 Hz, | 600 W AES, 50 Hz to 500 Hz, 2400 W peak | |
| | | | 1200 W AES total system; 2400 W peak each | 1200 W AES total system; 2400 W peak each | |
| | | | transducer, 4800 W peak total system | transducer, 4800 W peak total system | |
| HIGH FREQUENCY TRANSDUCER: | | | | | |
| Throat Diameter: | 38 mm (1 1/2 in) exit | 38 mm (1 1/2 in) exit | N/A | 38 mm (1 1/2 in) exit | |
| Nominal Impedance: | 8 ohms | 8 ohms | N/A | 8 ohms | |
| Power Rating: | 75 W AES, 1 kHz to 10 kHz, 300 W peak | 75 W AES, 1 kHz to 10 kHz, 300 W peak | N/A | 75 W AES, 1 kHz to 10 kHz, 300 W peak | |
| HIGH FREQUENCY HORN: | | | | | |
| Туре: | Optimized Aperture Flat-Front Bi-Radial®, die cast aluminum | Optimized Aperture Flat-Front Bi-Radial® | N/A | Optimized Aperture Flat-Front Bi-Radial® | |
| ENCLOSURE: | | | | | |
| Flying System: | None | S.A.F.E JBL proprietary, modular, certified | S.A.F.E JBL proprietary, modular, certified | S.A.F.E JBL proprietary, modular, certified | |
| Finish: | DuraFlex [™] Black Textured Paint | DuraFlex™ Black Textured Paint | DuraFlex [™] Black Textured Paint | DuraFlex [™] Black Textured Paint | |
| Grille: | 16 ga. perforated steel, foam backed | 16 ga. perforated steel, foam backed | 16 ga. perforated steel, foam backed | 16 ga. perforated steel, foam backed | |
| Dimensions H x W x D: | 4890A: 376 x 686 x 376 mm (14.8 x 27 x 14.8 in) | 628 x 394 x 362 mm (24 3/4 x 15 1/2 x 14 1/4 in) | 1066 x 394 x 362 mm (42 x 15 1/2 x 14 1/4 in) | 1066 x 394 x 362 mm (42 x 15 1/2 x 14 1/4 in) | |
| | 4891A: 470 x 394 x 559 mm (18.5 x 15.5 x 22 in) | | | | |
| | | | | | |

¹Half space measurement

2Recommended Power Amplifier ratings are a guide for amplifier selection considering normal program material and line voltage available to amplifiers, although lower power amplifiers may be utilized. The Array Series systems are capable of greater peak power input.

DSC260

ARRAY SERIES CONTROLLERS

DSC280

| Frequency Response1: | 20 Hz - 20 kHz (<+/- 0.5 dB) | 15 Hz - 20 kHz ±0.25 dB |
|----------------------------|--|---|
| Configuration: | Mono 4, 5 and 6-way | 2 Channels; 1, 2, 3, 4-way out |
| Inputs (Balanced): | 2 Channels, +20 dBu max level 10 kOhms | Analog: 2 Ch, Max level +20 dBu, Pin 2+ |
| | Electronically balanced XLR connectors | Digital Option, AES/EBU |
| Outputs (Balanced): | 6 Channels, +10 dBu into 600 Ohms max level Electronically | 8 Bands, Max level 20 dBu, Pin 2+ |
| | balanced XLR connectors | |
| Front Panel Controls: | Mute for each output band, Function, Parameter, Memory | Mute for each output band, Function, Parameter, Memory |
| Rear Panel Controls: | | AC voltage selection, +10 dB input switch |
| Display: | 2 x16 character backlit LCD | LEDS for; meters, mute, switch enable, LCD screen for programming functions |
| Dynamic Range: | >100 dB | >105 dB |
| Total Harmonic Distortion: | <0.05%, 20 Hz-20 kHz, @+10 dBu | <.001%, 20- 20 kHz, @ +10 dBu |
| Nominal Gain: | -10 dB | 0 dB (Unity Gain) |
| Limiters: | User adjustable threshold | User adjustable threshold |
| Sampling Rate: | 46.875 kHz | 48 kHz |
| Input/Output Converters: | 20 bit | 20 bit |
| Crossover Frequency: | 1 kHz | 1 kHz |
| Dimensions (H x W x D): | 44.4 x 483 x 203 mm (1.75 x 19 x 8 in) | 89 x 483 x 357 mm (3.5 x 19 x 14 in) |
| Weight: | 2.8 kg (6.2 lbs) | 6.8 kg (15 lbs) |

¹Equalization, infrasonic filters disabled

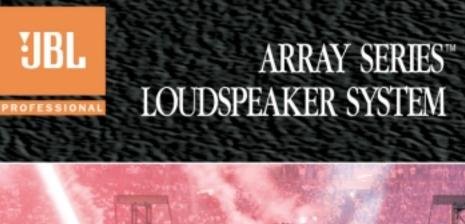
For detailed technical and architectural specifications, contact JBL Professional



JBL Professional 8500 Balboa Boulevard, Northridge, CA 91329 (818) 894-8850 www.jblpro.com

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CAT ARRAY 2000 2/00/15M ©2000 JBL Professional



JBL The Array Series: Loudspeaker Systems That Reaffirm JBL's Commitment To Total Engineering.

The Array Series Solution: A Compact, Flexible System For Professionals

Array Series is an optimized system which combines precision engineered transducers and advanced control technology for a level of performance second to none. Since its introduction these system products have found favor around the world in a wide variety of applications: musical theater, concert audio, corporate A/V rental work, dance music club installations and broadcast/film special event support, to name but a few.

Optimized System Engineering

To optimize transducer integration, JBL engineers turned to advanced signal processing technology to assure smooth response and phase integrity. Crossover filters, transducer alignment, system equalization and protective limiting are implemented to be completely transparent, allowing the transducers to perform to their maximum potential. Available digital controllers offer the user a choice of features and performance to complement any installation or portable touring system.

Low Frequency Transducer: Maximum Continuous SPL The optimized Thermal Management System magnet structure substantially increases continuous power handling for greater total acoustic output and dynamic range compared to conventional designs.

The Sum Of Its Parts Low Frequency Transducers

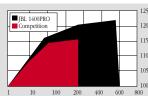
For Array Series, JBL engineers developed

the first-ever neodymium-based pro audio low frequency transducer. This 335 mm (14 in.) device features an advanced magnet structure, used for high flux density and low overall weight. Harmonic distortion is reduced through

the use of dual shorting rings (one aluminum and the other copper). Linearity is maintained, even at highexcursion extremes, with the use of a 100 mm

(4 in.) diameter edgewound aluminum ribbon voice coil. The audible result is absolute clarity and definition in the bass/low mid frequency region.

JBL's exclusive VGC[™] (Vented Gap Cooling) technology is part of an optimized Thermal Management System which makes efficient use of both forced air and convective cooling. Convection cooling is maximized by encasing the compact, powerful neodymium magnet within the diecast aluminum frame, engineered to act as a large, efficient heatsink. This design reduces thermal compression by as much as



60% compared to competitive products, allowing Array Series systems to deliver higher sound pressure levels at full dynamic range.

A glass fiber/paper composite cone is used to achieve a greater stiffness-to-weight ratio. The new cone formulation, along with its ribbedwall geometry, greatly reduces distortion by minimizing cone break-up.

High Frequency Compression Driver

Array Series products use a 38 mm (1 1/2 in.) exit compression driver that features a neodymium magnet assembly for maximum magnetic energy and minimal weight. A damped 100 mm (4 in.) diameter pure titanium diaphragm is positioned over JBL's Coherent Wave[™] phasing plug for phase-correct summing at the exit throat.

Optimized Aperture[™] Bi-RadiaI[®] Horns

To achieve smooth, even dispersion at low distortion in both the horizontal and vertical planes, Optimized Aperture Flat-Front Bi-Radial horns were developed for Array Series systems. The family includes a 45° model with a uniform, narrow coverage pattern segment that combines well in arrays. 60° and 90° horns provide accurate, consistent coverage for non-arraying applications.



Upgraded Enclosures Now Feature DuraFlex[™]

Long term enclosure durability is assured by 13-ply birch hardwood construction, proven joinery techniques and JBL's rugged DuraFlex[™] exterior coating. Structural integrity is enhanced by internal steel braces which double as attachment points for S.A.F.E.[™] flying hardware accessories. The enclosure's sidewalls taper at 22.5° angles, matching horn coverage angles for effective array construction.

For easy transport, two comfortable handles are installed on the side walls. The 4892A features a 35 mm (1 3/8 in.) pole mount cup on the bottom surface, for use with Tripod Speaker Stands. The grille is 16 gauge perforated steel, lined with open-cell reticulate foam to protect against moisture damage and dust. Input is through two paralleled 8-pole Speakon[™] connectors, which access each transducer component individually.

Advanced Control Electronics

Sophisticated control electronics allow Array Series transducers to perform to their maximum capability. Careful consideration has been given to the overall circuit topology of crossover filters, transducer alignment, system equalization and protective limiting. The DSC26O provides cost-effective

signal processing with simple setup. The DSC28O offers additional precision, flexibility

100 mm (4 in) pure titanium diaphragm features JBL's patented diamond surround to reduce membrane stresses in the support structure. Aquaplas damping reduces break-up modes and smoothes overall response

VGC™ (Vented Gap Cooling) uses normal cone excursion to force air across the voice coil for maximum heat dissipation, resulting in higher power handling and reduced power compression

harmonic distortion

effective convection cooling. usage

safe rigging.

and user convenience available only in the digital domain. Either choice will provide superior, high level sound quality.

DSC280





the ability to assemble loudspeaker

There's An Array System Designed For The Only Application That Matters- Yours.

4890A,4891A Two-Way Single 355 mm (14 in) **Full Range System**

These stage monitors use two configurations; vertical format for minimal footprint, and horizontal for minimal height to allow unobtrusive presence on stage. A 600 x 400 horn that rotates in the 4890A and 45° cabinet angles provide optimum coverage for any application Linear response at high level satisfies even the most demanding artist.





4892A,4892A-90 Two-Way Single 355 mm (14 in) **Full Range System**

These compact packages exhibit outstanding full range output and are capable of very high sound pressure levels. Both deliver impressive performance, the 4892A as a dedicated array component and the 4892A-90 for single system applications. A 35 mm (1 3/8 in) pole mount adapter is standard.

The 4892A, 4893A, & 4894A can be arrayed together making it possible to custom tailor clusters for virtually any desired coverage.



4894A,4894A-90 Two-Way Dual 355 mm (14 in) **Full Range System**

In situations where greater low energy is required, the 4894A and 4894A-90 deliver. They are the ideal system choice for outdoor and larger venue applications where maximum sound pressure level is required without compromising fidelity. The 4894A can be used as an array element and for side fill applications. The 4894A-90 provides wider coverage from a single enclosure.



13-ply, 19 mm (3/4 in) void-free, cross-grain hardwood construction for maximum durability in fixed or portable applications.

Dual shorting rings, aluminum and copper, greatly reduce 2nd and 3rd order

Neodymium magnet structure for light weight and high flux density. Black motor structure is pressed into diecast aluminum frame which acts as heatsink for

Large diameter vents prevent compression for linear output during high SPL

Integral steel braces accept S.A.F.E.™ (Secure Array Flying Hardware) for quick,



S.A.F.E.[™] Flying Hardware An important aspect of Array Series is

clusters quickly and with absolute safety. Designed, engineered and certified with a 6:1 safety factor, S.A.F.E. flying hardware

easily meets and exceeds the most stringent safety requirements for sound system rigging. A complete line of hardware is available to allow cluster construction for any appli

cation.



4893A Dual 355 mm (14 in) Subwoofer System

Delivers sub-bass support for the Array Series full range systems. Its compact, solidly constructed enclosure houses two advanced VGC low frequency transducers for tight, solid and dynamic bass.

